

IN THE CLAIMS

The following is a complete listing of the claims now pending; this listing replaces all earlier versions and listings of the claims.

Claim 1 (previously presented): A method of generating a colored or shaded texture for images, the images to be displayed on a display device or printed, the method including the steps of:

- (a) providing a plurality of shape elements, each shape element defining a surface;
- (b) providing each of the shape elements with an opacity which varies over its surface;
- (c) arranging the shape elements in an overlapping fashion to fill a predetermined region of the images such that the region has a substantially uniform opacity; and
- (d) rendering the shape elements for output to a printer or display device, such that the overlapping opacities generate a colored or shaded texture.

Claim 2 (previously presented): A method according to claim 1, wherein the shape elements are regular geometric shapes.

Claim 3 (original): A method according to claim 2, wherein each of the shape elements is of the same general shape.

Claim 4 (original): A method according to claim 2, wherein the shape elements are of a similar size.

Claim 5 (original): A method according to claim 4, wherein the shape elements are circles.

Claim 6 (original): A method according to claim 4, wherein the shape elements include squares, hexagons, or other regular polygons.

Claim 7 (previously presented): A method according to claim 1, further including the step of assigning a focal point to each of the shape elements, wherein the opacity of each shape element varies with distance from the focal point.

Claim 8 (original): A method according to claim 7, wherein each focal point is located within its associated shape element.

Claim 9 (original): A method according to claim 8, wherein each focal point is located at or adjacent to a center of its associated shape element.

Claim 10 (original): A method according to claim 7, wherein the opacity at any given point within each shape element is determined by the distance of that point from the focal point.

Claim 11 (original): A method according to claim 7, wherein opacity of each shape element varies between the focal point and the perimeter of the shape element in accordance with a predetermined function.

Claim 12 (original): A method according to claim 10, wherein the predetermined function is exponential or linear.

Claim 13 (original): A method according claim 1, wherein at least some of the shape elements have a color component associated with them.

Claim 14 (original): A method according to claim 13, wherein the color components vary from shape element to shape element.

Claim 15 (original): A method according to claim 13, wherein the color component of each shape element varies across its surface.

Claim 16 (original): A method according to claim 13, further including the step of varying the color components of the shape elements over time, and periodically rendering the shape elements.

Claim 17 (original): A method according to claim 16, wherein the color components are varied in a cyclic fashion.

Claim 18 (original): A method according to claim 17, wherein a period associated with the cyclic color change is selected at random for each shape element.

Claim 19 (original): A method according to claim 1, further including the step of varying the opacity of one or more of the shape elements over time, and periodically rendering the shape elements.

Claim 20 (previously presented): A method according to claim 19, wherein the opacity is varied in a cyclic fashion.

Claim 21 (previously presented): A method according to claim 20, wherein a period associated with the cyclic opacity change is selected at random for each shape element.

Claim 22 (original): A method according to claim 1, further including the step of applying the colored or shaded texture within a boundary defined by a closed curve.

Claim 23 (original): A method according to claim 22, wherein the closed curve is defined by a font character outline.

Claim 24 (currently amended): Apparatus for generating a colored or shaded texture for images, the images to be displayed on a display device or printed, the apparatus including:


(a) means for providing a plurality of shape elements, each of the shape elements defining a surface and having an opacity which varies across the surface;

(b) means for arranging the shape elements in an overlapping fashion on a background page to fill a predetermined region of the images such that the region has a substantially uniform opacity;

(c) means for rendering the shape elements such that the overlapping opacities generate a ~~coloured~~ colored or shaded texture;

(d) means for outputting the colored or shaded texture to a printer display device.

Claim 25 (original): Apparatus according to claim 24, wherein the shape elements are regular geometric shapes.

 Claim 26 (original): Apparatus according to claim 24, wherein the shape elements are circles.

Claim 27 (previously presented): Apparatus according to claim 24, further including assignment means for assigning a focal point to each of the shape elements, such that the opacity of each shape element varies with distance from the focal point.

Claim 28 (previously presented): Apparatus according to claim 27, wherein the assignment means assigns the focal points to areas within the respective shape elements.

Claim 29 (previously presented): A method of producing a printed product including a laminar substrate formed from paper, card or other reproduction medium, the method including the steps of:

- (a) providing a plurality of shape elements, each shape element defining a surface;
- (b) providing each of the shape elements with an opacity which varies across the surface;
- (c) arranging the shape elements in an overlapping fashion to fill a predetermined region of the printed product such that the region has a substantially uniform opacity;
- (d) rendering the shape elements such that the overlapping opacities generate a colored or shaded texture; and
- (e) printing or otherwise applying the colored or shaded texture to the laminar substrate.

Claim 30 (previously presented): A computer storage medium bearing one or more computer software programs for execution on a computer, the computer software program or programs including compiled or uncompiled software instructions for implementing a method of generating a colored or shaded texture to be displayed on a display device, stored or printed, including instructions for implementing the following steps:

- (a) providing a plurality of shape elements, each shape element defining a surface;

- (b) providing each of the shape elements with an opacity which varies across the surface;
- (c) arranging the shape elements in an overlapping fashion to fill a predetermined region such that the region has a substantially uniform opacity;
- (d) rendering the shape elements such that the overlapping opacities generate a colored or shaded texture.

Claim 31 (previously presented): A computer storage medium according to claim 30, wherein the program or programs stored thereon include instructions for implementing the additional step of displaying the colored or shaded texture on a display device associated with the computer, storing the colored or shaded texture on storage means associated with the computer or printing the colored or shaded texture on a printer associated with the computer.

Claim 32 (previously presented): A method of generating a colored or shaded texture for images, the images to be displayed on a display device or printed, the method including the steps of:

- (a) providing a plurality of shape elements, each shape element defining a surface;
- (b) providing each of the shape elements with an opacity which varies over its surface;
- (c) arranging the shape elements in an overlapping fashion to fill a predetermined region of the images such that the region has a substantially uniform opacity;

(d) rendering the shape elements for output to a printer or display device, such that the overlapping opacities generate a colored or shaded texture; and

(e) varying the opacity of one or more of the shape elements over time, and periodically rendering the shape elements.

Claim 33 (previously presented): A method according to claim 32, wherein the opacity is varied in a cyclic fashion.

Claim 34 (previously presented): A method of generating a colored or shaded texture for images, the images to be displayed on a display device or printed, the method including the steps of:

(a) providing a plurality of shape elements, each shape element defining a surface;

(b) providing each of the shape elements with an opacity which varies over its surface;

(c) arranging the shape elements in an overlapping fashion to fill a predetermined region of the images such that the region has a substantially uniform opacity, the region lying within a boundary defined by a closed curve; and

(d) rendering the shape elements for output to a printer or display device, such that the overlapping opacities generate a colored or shaded texture.

Claim 35 (previously presented): A method according to claim 34, wherein the closed curve is defined by a font character outline.

Claim 36 (previously presented): A method of generating an interference texture for an image, the method comprising the steps of:

- a) defining at least one texture region within the image;
- b) providing a plurality of shape elements, each shape element defining a surface and having an opacity that varies over the surface;
- c) identifying a plurality of substantially equidistant points within each texture region;
- d) placing a shape element at each identified point such that adjacent shape elements overlap to provide a substantially uniform opacity within each texture region; and
- e) rendering the shape elements for output to a printer or display device such that the overlapping opacities generate an interference texture within each texture region.

Claim 37 (previously presented): A method as claimed in claim 36 wherein the points are identified using a mesh-fitting algorithm.

Claim 38 (previously presented): A computer program product comprising program code recorded on a machine-readable recording medium, for controlling the operation of

a data processing apparatus on which the program code executes to perform a method of generating an interference texture for an image, wherein the method comprises the steps of:

- a) defining at least one texture region within the image;
- b) providing a plurality of shape elements, each shape element defining a surface and having an opacity that varies over the surface;
- c) identifying a plurality of substantially equidistant points within each texture region;
- d) placing a shape element at each identified point such that adjacent shape elements overlap to provide a substantially uniform opacity within each texture region; and
- e) rendering the shape elements for output to a printer or display device such that the overlapping opacities generate an interference texture within each texture region.